

Software Communications Architecture Specification

**APPENDIX A. GLOSSARY**

MSRC-5000SCA

Appendix A

rev. 1.0

## APPENDIX A    GLOSSARY

### A.1 ABBREVIATIONS AND ACRONYMS.

Abbreviation	Definition
802.x	IEEE network interface standards
AEP	Application Environment Profile
API	Application Program Interface
ASIC	Application Specific Integrated Circuit
BIT	Built-In Test
BSD	Berkeley Software Distribution
BSP	Burst Schedule Packets
BTS	Base Transceiver Station
C++	a computer programming language
C <sup>4</sup> I	Command, Control, Communications, Computers and Intelligence
CF	Core Framework
COMSEC	Communication Security
CORBA	Common Object Request Broker Architecture
COTS	Commercial Off the Shelf
CPU	Central Processing Unit
DoD	Department of Defense
DSP	Digital Signal Processor
DTD	Document Type Definition
FPGA	Field Programmable Gate Array
GIOP	General Inter-ORB Protocol
GPP	General Purpose Processor
GPS	Global Positioning System
HCI	Human-Computer Interface
HF ALE	High Frequency – Automatic Link Establishment
HH	Hours
HQ	Have Quick, an electronic counter-countermeasures waveform
HW	Hardware
I/O	Input/Output

<b>Abbreviation</b>	<b>Definition</b>
ICD	Interface Control Document
ID	Identification, Identifier
IDL	Interface Definition Language
IEC	International Electrotechnical Commission
IEEE	Institute of Electrical and Electronic Engineers
IIOIP	Internet Inter-ORB Protocol
INFOSEC	Information Security
I/O	input/output
IOR	Interoperable Object Reference
IP	Internet Protocol
ISO	International Standards Organization
Java	Computer Programming Language
JPO	Joint Program Office
JTA	Joint Technical Architecture
JTR	Joint Tactical Radio
JTRS	Joint Tactical Radio System
LAPx	Link Access Protocol x (where x represents 1 of several protocols defined by industry)
MAC	Medium Access Control, a sublayer of the OSI Data Link Layer
MIB	Management Information Base
MLS	Multi-Level Security
MM	Minutes
MSB	Most Significant Bit
MSRC	Modular Software-Programmable Radio Consortium
MISSI	Multilevel Information System Security Initiative
N/A	Not Applicable
NAPI	Networking Application Programming Interface
NSA	National Security Agency
OE	Operating Environment
OMG	Object Management Group
OO	Object Oriented
ORB	Object Request Broker
ORD	Operational Requirements Document

<b>Abbreviation</b>	<b>Definition</b>
OS	Operating System
OSD	Operational Security Doctrine
OSI	Open System Interconnection
OTAR	Over-the-air Rekey
PCI	Peripheral Component Interconnect (bus)
PMCS	Programmable Modular Communication System
PN	Pseudo random Noise
POSIX <sup>®</sup>	Portable Operating System Interface
PPP	Point-to-Point Protocol
PSE52	Real-time Controller System Profile, defined in IEEE Std 1003.13
QoS	Quality of Service
RAM	Random Access Memory
RF	Radio Frequency
RS-232	Electronic Industries Alliance interface standard
RS-422	Electronic Industries Alliance interface standard
RS-423	Electronic Industries Alliance interface standard
RS-485	Electronic Industries Alliance interface standard
SA	Situation Awareness
SAD	Software Assembly Descriptor
SCA	Software Communications Architecture
SCD	Software Component Descriptor
SDD	Service Definition Description
SINGARS	Single Channel Ground/Airborne Radio System
SLIP	Serial Line Internet Protocol
SNMP	Simple Network Management Protocol
SPD	Software Package Descriptor
SRD	Support and Rationale Document (for the SCA)
SW	Software
TBD	To Be Determined
TBR	To Be Reviewed
TCP	Transmission Control Protocol
TOD	Time Of Day

<sup>®</sup> POSIX is a registered trademark of the Institute of Electrical and Electronics Engineers, Inc.

<b>Abbreviation</b>	<b>Definition</b>
TRANSEC	Transmission Security
UML	Unified Modeling Language
UNIX	A computer operating system developed by AT&T Bell Laboratories.
UUID	Universally Unique Identifier
VME	VersaModule Eurocard, a 32 bit data bus standard
XML	eXtensible Markup Language

## A.2 DEFINITIONS.

### Application

1. An executable software program which may contain one or more modules. The executable software exhibits pre-determined functionality (e.g. a waveform).
2. The SCA defines an *Application* interface class that provides the interface for the control, configuration, and status of an instantiated Application program.

### Commercial Standard

A Commercial Standard is a set of requirements maintained for common use by industry. As used in this specification, commercial standards are available for use without restrictive licensing and are supported by commercially available hardware or software.

### Component

A software module.

### Consumer

A software component that can receive user data traffic.

### Core Application

An application program implementing the CF Framework Control Interfaces.

### Destroy

The act of releasing / terminating a software object.

### Device

1. A physical hardware element (typically a module performing a function or set of functions identified in its Device Profile).
2. The SCA defines a *Device* interface class. This logical *Device* interface is an abstraction of a hardware device that defines the capabilities and attributes for that logical device.

### Device Profile

Elements of the Domain Profile relating to hardware devices. This XML profile defines the kind of hardware device and the applicable attributes for type of device. The Device Profile also indicates if the device has load and execute behavior and the attributes that can be queried and configured.

### Domain

A Domain defines a set of hardware devices and available Applications under the control of a single *DomainManager* component.

### Domain Profile

The Domain Profile is the set of software profiles and hardware profiles that describe the individual hardware devices and software components under the control of a *DomainManager*.

**Port**

A port identifies a source (output port) or a sink (input port) for data. The SCA-defined *Port* interface can transmit / receive user data and/or command and control information. A *Port* specifies the types of data it accepts.

**Primitive**

An abstract, implementation-independent representation of the interactions between service users and service providers.

**Private**

As used in the SCA, a non-standard, proprietary interface definition.

**Producer**

A software module that can transmit user data.

**Public**

As used in the SCA, an open, publicly defined, non-license bearing interface definition.

**Resource**

A software component that implements the SCA defined *Resource* base application interface. The *Resource* interface is provided as an API for components of a user application.

**Software Profile**

Elements of the Domain Profile relating to software components.



